

*math*

**NEWS**

Volume 129, Issue 6

Friday, December 4<sup>th</sup>, 2015

**Stephen Harper  
(In Much Less Glory Than We Usually See Him)**



**POLL: Should *mathNEWS* editors use student funds to commission nude paintings of themselves?**

*They could be used for future *mathNEWS* covers!*



**lookAHEAD****mathNEWS**

Dec 4 Issue 6 celebrates the best day ever

**MathSoc**

Dec 4 Last day of regular office hours

**University**

Dec 4 Last day of classes  
 Dec 10 Fees Arranged due date  
 Jan 4 Co-operative work term begins  
 Jan 4 Lectures begin for the spring term  
 Jan 22 Standings and official grades available

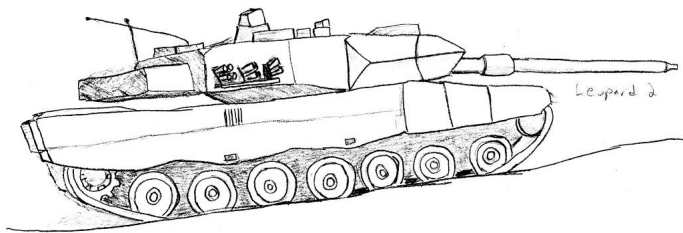
**Miscellaneous**

Dec 24 Christmas Eve  
 Dec 26 Boxing Day

**Article of the Issue***\*Sounds that explains our choice in article\**

The Article of the Issue is: An Intro to L<sup>A</sup>T<sub>E</sub>X *\*bell ring\**! Come by the office in the future (when we have rewards) to retrieve your reward, Diminutive Rex!

The Editors

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*mathNEWS* is normally a fortnightly publication funded by and responsible to the undergraduate math students of the University of Waterloo, as represented by the Mathematics Society of the University of Waterloo, hereafter referred to as MathSoc. *mathNEWS* is editorially independent of MathSoc. Content is the responsibility of the *mathNEWS* editors; however, any opinions expressed herein are those of the authors and not necessarily those of MathSoc or *mathNEWS*. Current and back issues of *mathNEWS* will eventually be available electronically via the World Wide Web at <http://www.mathNEWS.uwaterloo.ca/>. On May 14<sup>th</sup>, 2014, Thomas Baxter claimed that this ISSN was "bland" and "lacks humour", hence implying that it should be changed. *[I said so humourously; your inference is not my implication.—ConvolutED]* What do you think? Send your correspondence to: *mathNEWS*, MC3030, University of Waterloo, 200 University Ave. W., Waterloo, Ontario, Canada, N2L 3G1 or to [mathNEWS@gmail.com](mailto:mathNEWS@gmail.com) on the Internet.

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Thomas Baxter (Rock), Zishen Qu (Paper), Katherine Tu (Scissors), Jose-Miguel Velasco (Carpal Tunnel)

**mastHEAD**

So this is the final *mastHEAD* of this term. If you haven't already guessed, this is also the final issue of the term. It feels bittersweet to finally be done as an editor for a while.

I'm lying. It's just sweet satisfaction and relief. Unfortunately every issue this term was on the same week as one of our mid-terms or tests, which sucked for us editors.

So naturally, we recruited a new editor who was not in the same classes as us. We also chose someone who probably had too much work to do this term anyways—because he's clearly capable of doing lots of work—and made him do most of the work.

This must be what it feels like when a company hires an intern and makes them do the shit jobs. I've never felt more like an actual boss than before.

Soon, he will become a full-time editor and will take the flak we take for being full-time editors. For now, I will get him back to work, since he could always use more work. Being lazy, I decided to ask "What official ED name should we give our Editor-In-Training?"

2.3.5.7.735.2333772 ("mathSNEWED");  $s, t \in \{2k, k \in \mathbf{Z}\}$ , 144 (InexperiencedED"); Shay Blair ("firED"); Dusk Eagle ("FuckED"); Diminutive Rex ("NotYetDED"); HatOfChocolated ("NewED()"); TotallyLegitDeveloper ("NeverBorED"); Paru-paru ("forgot-mymED"); Element118 ("unidentified"); waldo@<3.LE-GASP.ca ("OverworkED"); Editor-in-Training ("trained"); Soviet Canadian ("ChalkBoardED or BoardED for short"); BeyondMeta ("mysteryED"); Scythe Marshall ("IndoctrinatED"); Pizza Freeloader Kid ("Optimized"); Depressimist ("Don't give him a name; it will only make his inevitable death more difficult."); Zethar ("As is tradition, none of the above and dictated by the other EDs"); ConvolutED ("ShouldBeDoingHomeworkInstED");

SketchED  
 ("UnderclockED").

**Games Sez**

A huge thank you to everyone who attended any of our Games events, whether it was one of our weekly games nights, our Games Nights with Profs, or our 24-Hour Games Night this past weekend. Games wouldn't be the same without our dedicated community. A huge shout out to all the people who also helped behind the scenes.

I hope you all had fun, made new friends (and rivals), and enjoyed new games you probably wouldn't otherwise have played. I hope you all show up again during your next term at the university.

Until next time! (Which, by the way, may be Thursdays over the exam period, because why not?)

Your Games Director,  
 a crafty player

## Prez Sez

Hello,

IT'S THE LAST CLASS DAY OF THE TERM!

Reminder that the Frozen in Time semi-formal is on Sunday. I hope you all got tickets!

There are elections happening currently, so remember to vote for your Vice President, Operations and other positions at <http://mathsoc.uwaterloo.ca/vote> on Monday!

I'd like to thank all of you that came out to our events, you guys help make MathSoc worthwhile, and put a face to the students we are working for (whether through advocacy, fun events, or clubs).

I would also like to thank the hundreds of volunteers tirelessly working to make everything we do possible, you make our events run, our advocacy successful, and the Math student experience better. You guys are the best!

Good luck on all your exams!  
Prez Tristan Potter

## PSA: Schedule of Classes

There's a nifty little tool that you can find at <http://www.adm.uwaterloo.ca/infocour/CIR/SA/under.html> called the Schedule of Classes. This tool is your best friend when you're trying to arrange your schedule for your next term. It tells you which classes are being held when, and how full they are. If I wanted to look for a different section of Calc II to switch into next term, for example, I would search Term:1161, Subject:MATH, Course Number:138. If the total enrollment (Enrl Tot) is lower than the enrollment cap (Enrl Cap), then there's probably space.

Some courses, however, have spots reserved for people in certain programs. This will be noted under the lecture number. If all the open spots are reserved, and you don't meet the conditions of the reserve, then you can't enroll yourself in the course.

Of course, none of these numbers are 100% written in stone. It's occasionally possible to get overrides signed even if the course is full, or reserved for other types of students, or once, memorably, even if you have none of the multiple prerequisite courses. But you will need to go get an override form (or an email from the prof) to get in, and you're much more likely to get an override form signed if you know exactly what you want it for, why you want it, and you can confidently explain this to the professor you need to sign it for you. Also, the Math Undergraduate Office will find you much more pleasant to work with if you put in some effort to fix your schedule problems yourself before you go whining to \*ahem\* seeking help from them.

Diminutive Rex

**mathNEWS Sez: "Write More Sez"**

## Diminutive Rex Sez

I've always wanted to have a spot on the second page of *mathNEWS*, but I thought the 'Sez' articles were reserved for people with something interesting and important to say. Then Dusk Eagle got one last issue, and I realized that the bar was clearly far lower than I had expected.

Don't worry, I have a lot of things to say (to sez?!). Have you ever really thought about walls? They're painted all sorts of colours. The fifth floor of MC is entirely this weird, horrible orange, and nobody seems to know why. The walls also have all sorts of textures. There are a lot of those weird almost gummy stucco walls around here. Personally, I prefer the timeless charm of bare brick. For something that surrounds us for most of our lives, we don't really think about walls all that much!

It's a little sinister, isn't it? They're always there. Most people go all term without going out of sight of a wall. They've integrated themselves into our daily lives. What sort of chaos would be created if all the walls suddenly stopped working? If someone hacked the walls? We couldn't even protect them with firewalls, because, presumably, those would be down too. Walls are really a shocking vulnerability in our day-to-day lives!

Wow, I was gonna say some more things, but I think I'll go look at some walls instead. I hope to see you guys out there on campus, closely examining the walls!

Diminutive Rex

## Cabaret Sez

Looking for something to do tonight, because what good is sitting alone in your room? Come hear the music play, and see talented people sing, dance, and act their faces off! The Cabaret end of term performance is tonight, December 4<sup>th</sup> at 8:00 PM in Hagey Hall. Tickets are \$12 at the door.

This term you will get to enjoy a show full of love, laughter, betrayal, and revenge.

Get Outta' Town is about two groups, The Fettuccines and The Mustangs, who are town rivals. Come see a town fall to ashes and another full of revenge. As two lovers paths intertwine, a forbidden love. How will it all end?

Life is a Cabaret, old chum, so come to the Cabaret!

## The Satire Workshop Centre For Kids Who Can't Write Good And Wanna Learn To Write Good

Have you ever wanted to learn to write good? Maybe do other stuff good too? Well, some *mathNEWS* editors are considering a hosting satire writing workshop with professional speakers. If such a workshop (and free pizza) interests you, come out and write for *mathNEWS* next term. Biweekly meets and eats!

## Feds More Than Doubles Minimum Club Size

On Saturday, around 1:00 AM, I received an email from the Feds Club Manager, regarding the state of clubs on campus for the next semester. At first, I was confused why the Clubs Manager was sending out an email at 1:00 in the morning. But then I remembered that this is the same Clubs Manager that had his emails not get sent out for over a month, only to have all the backed up emails sent out all at once, inundating everyone on the mailing list with a ton of outdated information and causing my Gmail account to start marking all his email as spam. So I guess after that I shouldn't be surprised by the times his emails arrive at.

Normally, an email from Feds goes unread in my inbox, along with the other 2674 messages I currently haven't read. However, a hunch that Feds might be up to some fuckery lead me to actually open the email and read it.

The email informed me that "IAC has increased the minimum number of members for a club to be active from 7 to 15." I had no clue who IAC is, so I decided to Google it. Now, I have no clue why InterActiveCorp, an American media and Internet company, has any interest in the size of clubs at UW, but apparently they do and have spoken, and the Clubs Manager concurs with them.

But seriously, this change by Feds is bullshit. Some people I've never heard of decided, without consulting any clubs that I or any of my friends are a part of, to more than double the number of people required for a club to exist. I really cannot understand why Feds decided this change was a good idea. Perhaps they are unaware of the difficulties clubs already face in recruiting enough members. You might think that Clubs Day, which takes place the second week of every term, would be the perfect place to promote your club and get the minimum amount of members. But you'd be wrong, thanks to a change made by the Clubs Manager this semester, in his first couple weeks on the job, which requires clubs to submit their forms demonstrating they have enough members to be active before being allowed a booth to promote their club at Clubs Day and attempt to gain said minimum amount of members. Existing clubs can sometimes get enough members by relying on their members from the previous semester to sign the form, assuming they haven't left for co-op. Forming a new club, however, just got more than twice as hard, if you even bother trying at this point.

I decided to email the Clubs Manager about this change, informing him of the ridiculousness of it. His reply stated that Feds is looking to shift from a "micro" club system to a "macro" club system, where existing clubs with their own unique interests would get consolidated into larger general-interest clubs. I cannot see how there'd be too many people that would get more engaged in clubs on campus by having them less tailored to their own interests, but then again, I don't work for Feds.

Or, and of course I'm only speculating here, perhaps the true goal is not to increase student engagement, but instead to cut down on the number of clubs in order to create less work for Feds and the Club Manager. After all, in the same email, he in-

formed me how he apparently spent 40+ hours in September alone explaining and fixing issues related to clubs for various club executives. Personally, his having to do his job for at least 1/4 of the month doesn't elicit too much sympathy from me, but apparently this was such a burden that it prevented him from getting back to at least one club I talked to, which repeatedly filled out room-booking forms, only to receive dead silence from him.

At the end of his reply to me, he asked to please let him know if I have any other concerns. So, Clubs Manager, I'd like to let you know right here that I'm concerned Feds is operating according to their own self-interest rather than the interests of students, and that I'm concerned that your response to my email completely failed to alleviate my existing concerns regarding the direction you are taking clubs at this University.

P.S. In the disclaimer you included at the bottom of your email, you let me know that your message is intended only for use by the individual or entity to which it is addressed, and that any dissemination, distribution, or copying of this information is strictly prohibited. Besides the fact that I have no clue what is meant by "strictly prohibited", I would like to point out that I never entered into any such agreement to keep confidential the contents of any emails you send to me, and so your attempt to impose such conditions on me or anyone else is legally meaningless.

## Why Superlatives are the Worst!

There is a certain fixation on being the best, the greatest, number one—perhaps even the *only* one. This is not the healthiest attitude one can have about life. The vast majority of our experiences are not going to be some unique extreme, and these experiences are not without value. Often times we use superlatives to emphasize how something is extra special. However, in some ways, this undermines all these other experiences.

I will fully admit that I have someone that I call my best friend, though I feel that this title is more kept for historical reasons. They are definitely an amazing and awesome friend. They are, however, not the only friend that deserves such credit. I have a different relationship with each person I interact with, and with certain people I may connect better in certain ways. I often feel that, in searching for the best, we fail to appreciate the diversity that surrounds us.

Sometimes being the best at something isn't even that useful. A study following children with exceptionally high IQ found that they were no more likely to succeed than a child with an IQ of 120. For most things in life what it takes is to be *good enough*.

For myself, I currently have the goal of slowly exorcising superlatives from my vocabulary, to instead emphasize that all experiences that are worth cherishing, not just the best.

## Avoiding Writers

No individuals were specifically referred to during the writing of this article.\*

It's a well known fact that one should be wary of dating a writer, as one will inevitably be used in this person's writing. However, not dating a writer is not sufficient. Writers will use anyone who comes under their attention in their stories. The only way to avoid this is to avoid writers altogether.

Unfortunately, sometimes spotting a writer can be difficult. While there are signs indicating that someone is a writer—like showing up to *mathNEWS* Production Night—there aren't any obvious signs that someone *isn't* a writer. One might even say that there is a conspiracy in our society where the government is running this heavily-funded program for writers called 'schools'.

'Schools' are institutions where kids are kept inside for hours every day in the hopes that they learn to write. I can understand that the idea that someone might be writing about your life can be very distressing, but there is nothing that can be done. Writers can't be avoided. You can only read *mathNEWS* each week and hope that you come out unscathed.

Beyond Meta

\*Except Scythe Marshall but they don't count

## N Comebacks Discovered by a First-Year To Wreck Those Smarmy Engineers

Do you have an engineer in your life? Do you wish they'd finally admit that math is cooler than engineering? Well here are *n* comebacks to mean things they always say so you can put them in their place.

- **When they inevitably say they work more than you:** "Yeah, well you also have a higher dropout rate and, anyway, school isn't everything. You're just mean and a bully and you're just jealous because my prof says I'm cool. Just look at my shirt that has a funny math joke. Ha! Who's laughing now? I bet you've never even heard of pi."
- **When they say they get better jobs:** "You know what? Actuary is like the best job in the world and, even though they kicked me out of the program for my average, I'll make it back in after next term's STAT courses. When you work at McDonald's, I'll pity you."
- **When they say you're overreacting:** "Keep talking—I'm not listening. You're just wasting your time, and I don't think you have a lot of it. QED, motherfucker."

More to come after more probing conversations with engineers. I'll report back at 3:00 AM when I think of another.

Next time, How to Convince That Engineer Not To Punch You. Again.

Alias

## In a Flash Review

If you are looking for a cheap affordable Christmas present this year, then might I suggest *In a Flash*? *In a Flash* is an indie visual novel available for a suggested payment of \$5 at <http://brwarner.itch.io/in-a-flash>

Set in the year 2030, the story follows Elizabeth Bolden a private eye and former sex worker as she investigates a case of adultery. In the game you are required to look around and search for clues in order to solve the mystery.

The game has a very similar vibe to Phoenix Wright. If you enjoyed that game, you should definitely check this out. There is a lot of well written and hilarious dialogue in the game. The game play mechanics are beautiful in their simplicity. The primary mechanic of the game is your ability to take pictures of any part of the crime scene and present these pictures as evidence.

The game was made by UW grad Brook Jensen. I asked him if he had anything to say about his game for this article and his reply was "Ummmmmmmmmmmmmmmmmmmm."

Personally I am a big fan of supporting indie games as it's my personal belief that no one needs to be insanely rich and so my money is better spent supporting really neat projects that don't get enough love.

Beyond Meta

## An Intro to iTeX *\*bell ring\**

I confess, I don't really know anything about iTeX *\*bell ring\** except for it's awesome name. As Don Knuth explains it, "The bell is also part of the logo. It reminds us that iTeX *\*bell ring\** is not limited to obsolete conventions, not hampered by the days when documents were only seen but not heard" (Knuth, 2011).

If having strictly verbal representations of things was outdated in 2011, it must be doubly outdated now. For me, innovation at UWaterloo means trying out new disruptive trends to get us to change our way of thinking.

We can start with MC! MC's new name should be MC *\*sounds of students sobbing\**. Or maybe MC *\*frantic, rapid stapling\**. Or how about even MC *\*sounds of a laptop falling down the stairs\**.

But why stop at audio? We could rename the newest building Science Teaching Centre *\*uncomfortably prolonged eye contact\**. Or how about PAS *\*interpretive dance attempting to explain how to navigate PAS\**?

In the spirit of truly pushing the boundaries, we must consider names that are impossible to pronounce with just a human mouth. I like the SLC, but how much cooler would it be if it were called SLC *\*21 gun salute\** *\*fireworks explode overhead\** *\*parade goes by\**? Man, if that were our student centre, people wouldn't be able to stop talking about it.

Diminutive Rex

## We Need to Talk About Lucas

As the middle of December swiftly approaches, I know there is only one thing on every reader's mind: *Star Wars: The Force Awakens*. If you're not excited for this movie, then there must be some terrible, soul-sucking event happening around the same time—but what on earth could that be? When are finals again? Anyway, as we get closer to its release, I hear a lot of people screaming from the rooftops and heralding the “second coming of *Star Wars*.” And with it, I've heard a renewed vigour in the vitriol spat at George Lucas for the prequels and his tinkering of the original trilogy.

Say what you like about George Lucas, but he has never apologized for the prequels. He's stuck to his guns. He's a creator and fan service be damned, does what he wants because it's his story. I can respect a man like that. The last shred of respect I had for J.K. Rowling as a creator evaporated when she admitted that Harry probably should have married Hermione instead of Ron. Her comment essentially caused her to write fan fiction for her own novel in response to criticism from her fans. The very fact that of the three of them, Harry and Ron had more chemistry than either of them had with Hermione makes her backpedal doubly asinine.

Lucas has done no such thing. In recent comments to Vanity Fair, he even said all he wanted to do with *Episode VII* was “tell the story of what happened.” In response, Disney said it wanted to make something “for the fans.” So he walked away. He had enough decency and honour to not want to kowtow to the agenda of *Star Wars*' new rights holders or the people foaming from their mouths about how midichlorians ruined the Force. (I always saw midichlorians as organisms attracted to powerful Force users and not actually responsible for their powers.)

Contrary to popular belief, just as George R. R. Martin is not responsible to his fans to write books faster, neither is George Lucas responsible for giving people exactly what they want. He experiments, he likes to try new things, and he wants to tell the story he envisioned. It's clearly come to mixed results but you don't create a multi-billion dollar property by playing it safe.

Ultimately, there's a difference between liking someone's decisions and respecting them. I don't like Jar Jar Binks, I don't like Greedo missing from point blank range, and I really hate replacing Sebastian Shaw as Anakin's ghost with Hayden Christensen, because that one boggles my mind with its illogicalness. But I respect the man who gave them to me in the first place and I respect a creator's right to his own work.

This holiday, regardless of whether the old adage 'be careful what you wish for' holds true or not, we all need to remember something. George Lucas gave us Darth Vader. George Lucas gave us both Alec Guinness and Ewan MacGregor as Obi-Wan Kenobi. He gave us lightsabers, the Force, and Walking Carpets. George Lucas gave us *Star Wars*. He's one of the greatest creators in the world, is utterly unapologetic and is also kind of nuts. I can respect a man like that. It's about time everyone else did too.

Warrior

## N Ways to Get Free Food Around Campus, Ranked From Best to Worst

- **Co-op info sessions:** There is a convenient calendar of co-op info sessions on the CECA website. You don't need to be in co-op to go to these and you can just drop in and eat their food while the employers ramble on for half an hour. Bonus: you may also get free swag from companies. Some common items include t-shirts, water bottles, and sunglasses.
- **mathNEWS Production Night:** By far the best food-to-work ratio of all of these. If you can spend 10 minutes typing up a string of coherent words, you qualify for free pizza nova pizza on Production Night. As a writer, you also get to go to the *mathNEWS* EOT, which includes another free meal and some fun activity.
- **Talks and seminars:** These may vary. In general, talks sponsored by companies do tend to provide better food and swag, with the notable exception of very popular tech companies. (ie. Google, because everyone and their grandma shows up and the food is all gone in 10 seconds.) Also you get to learn something, hurray!
- **Hanging around MathSoc:** If you consider candy to be food, this may be the best way for you to get free food. There is a candy jar in MathSoc that is usually full, and everyone who has not opted out of the MathSoc fee has access to take as much as they want. You also get free pie during some form of Pi Day every term. (Of course, some of you may be thinking this is not completely "free" since you need to have not opted out of your Mathsoc fee. Then again, if you're not a math student this is vacuously true, so if you thought this you need to check your logic again.)
- **Volunteering for MathSoc:** This is by far the worst method of getting free food. You basically get a \$20 meal at the end of the term in return for volunteering at minimum an hour a week as an office worker for the entire term, which works out to be a little over a dollar per hour's worth of effort. You'd think as math students these kids would have figured out by now that they're getting ripped off, but maybe the continuous access to the free candy offsets the efforts from volunteering. Who knows.

bluecat

## N Things I Do Before Finals

- Try not to cry. Cry a lot.
- Recall what have I done for the past two months.
- Try to study, but get distracted by PSY's new single.
- Drink energy drinks when I need to sleep.
- Regret everything. (But there is nothing to regret.)
- Prepare to blame the weather for any failures.
- Write *mathNEWS* articles for free food.

I might fail my class but at least I have cookies.

me

## Merry Christmas. Don't be Offended.

It's that time of year again. The time for trees, tinsel, and candy canes, and the time for people to get offended by well-intended greetings. Yes, Christmas is just a few weeks away. Although Christmas is originally a Christian celebration of the birth of Jesus Christ, many non-Christians now celebrate the commercialized version. Then there are the non-Christians who don't celebrate it, but who don't have a problem with people who do. Then there are the non-Christians who get offended when people wish them a Merry Christmas. That's what I don't understand. Personally, I am Christian. But I'm open-minded and accepting of other religions (or non-religions). I understand that you may not celebrate Christmas, and that's totally fine with me. But I think it's a bit ridiculous if you get offended when I wish you well on a day that's important to me.

To put things in perspective, suppose you are someone who works on weekends, so Fridays have no special significance for you; you do not celebrate Fridays, and they are just like any other day of the week for you. However, for many, a Friday marks the beginning of a much-appreciated break from school or work, and so many people celebrate on Fridays. Now suppose I wish you a happy Friday. It is reasonable to guess that you probably wouldn't be offended just because you don't celebrate Fridays. You would likely appreciate the sentiment. Sure, Fridays don't really mean anything to you, but you still think it was nice of me to wish you a good one. I wasn't being insensitive; I just wanted you to have a great day.

The same idea applies to Christmas. When I wish you a Merry Christmas, I'm not being insensitive; I totally respect that you don't celebrate it. But I do, and part of my celebration involves wishing happiness to others. It doesn't matter whether or not you celebrate Christmas. Even if it's just another day to you, I

still want you to have a good one. Wishing you a Merry Christmas doesn't mean I don't respect your religious and/or cultural holidays and traditions. If I happen to know that you're Jewish, I'll wish you a Happy Hanukkah instead. But if I don't know otherwise, I'm going to say, "Merry Christmas," because that's what I'm celebrating.

I have a lot of Hindu friends, and a lot of them celebrated Diwali back in November. When one of them texted me to wish me a happy Diwali, I didn't get pissed off or consider them insensitive for wishing me a happy Diwali when I'm not Hindu. Instead, I did a quick Google search to find out what exactly Diwali is, then texted back, "Thank you! Same to you!" It didn't matter to me that I'm not Hindu, or that Diwali had no real significance for me. I just appreciated that he cared enough and took the time to wish me a good one. Later, another friend asked me to come celebrate Diwali with her and one of her friends. So I joined them... along with another Christian, and two Muslims. It didn't matter that most of us weren't Hindu. We were there to celebrate with our friends. We didn't ask that they call it a "holiday party" in order to make it more inclusive for everyone. Speaking for myself, I was just happy that they wanted me to be a part of their celebration.

So the next time someone wishes you a Merry Christmas, a Happy Hanukkah, or happiness on any other special day or holiday that you don't celebrate, don't be offended. Just say, "Thanks." Maybe even add a, "Same to you!"

Whether you celebrate it or not, I hope you have a very Merry Christmas!

TheUndecided

## 24-Hour Games Night: A Review

Ardent readers of this publication may be aware that there was a 24-Hour Games Night the previous weekend. This article is me being overly nostalgic and being an old fogey.

I would like to remark that I quite enjoyed the event; after all, it was 24 hours full of good board gaming. However, it lacked the ebullient ambience that has had in the past, being a mere husk of its former self.

The 24-Hour Games Night of the term was more of a glorified, extended regular games night; in the past there had been also a focus on playing the new acquisitions, which primes the attendees to play and learn new games as the night goes on.

It is a benefit of the night for people to be able to play long games without having to worry about getting up on the subsequent morning, but nowadays the long games of the society sits on the shelf, untouched—minus Terra Mystica and Arkham, but they're only like two hours long if you know what you're doing anyway. Gone are the days where Battlestar Galactica is played during pizza break, and gone are the days where Descent dice are rolled in the wee hours of the morning.

Is it too much for people to leave their comfort zone, to commit to a strange and novel game for an evening, and enjoying it (or vow to never play it again)? It appears to be too much to ask for that, less the times where 24-Hour Games Night was also for a time to innovate and try really stupid things with board games (Riskopoly anyone?).

Here's what I think a good 24-Hour Games Night should consist of. Please feel free to steal and use for later terms.

Time	Activities
Noon–4:00 PM	New acquisitions, regular games night games
4:00 PM–11:00 PM	Long game, usually with complex rules and/or in-depth strategy
11:00 PM–Midnight	Break; Pizza, short filler game
Midnight–6:00 AM	Second long game, long social deduction game
6:00 AM–10:00 AM	Mao, other games which benefit from the people playing not giving a damn
10:00 AM–Noon	Whatever people still have the mental capacity to play at this point

Zethar





## An Intro to Latex

So you're thinking of getting involved with latex. Congratulations! You've embarked upon a magical journey. Here's a guide to help you along your way. Latex is typically used to mean natural latex rubber, particularly non-vulcanized rubber.

First, you should do some research. Find some beginner's guides. Useful information to find out would be where and how to get latex. Another good thing to learn would be how to wear leather. Depending on what article of clothing you wish to wear that's leather, it may be more difficult to put on than others.

At this point you should have enough information to safely proceed. You may now venture out and purchase your first leather. Take good care of your new leather, remember not to give it food or drink, and make sure it's goes outside enough, but not in bad weather. Your leather can be very sensitive to such things.

Shay Blair.

## N Reasons My Parents Are Insane

- They were three hours late taking me out to lunch because they "got distracted by powerlifting."
- They claim to be "unethical vegans" because they hate animals too much to eat them.
- They claim that mayonnaise, nail polish, and hair dryers will all give you cancer.
- I was once caught taking money out of their wallets, and I was rewarded by being given more money.
- They think Singapore is somewhere in Nova Scotia.
- They go camping in tents when it's -14 °C.
- They claim taking aspirin or Tylenol when you have a headache is "for the weak."
- They have more canoes than we have people in our family.
- My dad once went fishing for bicycles with a grappling hook.
- My mom once threw a batch of samosas that she made at me, because they tasted funny.
- I have been told that nobody will want to hear my vacation stories because one time I ate a chicken nugget.

Diminutive Rex

## Movember?

So here I am, with a moustache worthy of any dictator, and nobody to usurp me. It has been a quiet Movember; probably due to the popularity of beards and the new no-shave November. Of course, no-shave November is just a product of insecure boys who feel emasculated without their big beards and do not want to shave. So I am issuing a challenge: submit your mustache to *mathNEWS* and prove you are not too chicken to support prostate cancer. I will judge them and the winner will get a free Prostate exam (or equal value cash prize\*!)

Lord Major General Mustachio

\*Healthcare is free in Canada  
[This contest is not officially sponsored by *mathNEWS*.—ConvolutED]

## An Intro to LAH-tekh

1. Realize that, for some bizarre reason, LaTeX is pronounced as LAH-tekh.
2. Go to a course that teaches LAH-tekh. Take a tutorial that teaches you LAH-tekh.

*mathNEWS* doesn't have the answers to everything. Sorry.

## In Loving Memory of David McKinnon

He's not dead, I just want you to remember his awesomeness.

This term, I had the opportunity to experience the great David McKinnon as a professor in MATH 147. Now some readers may know that I am responsible for the many, many McKinnon quotes, sometimes pages, quotes that have managed to sneak into issues of *mathNEWS* this term. It became so ridiculous that eventually the editors simply refused to have more McKinnon quotes in *mathNEWS*. Once, a friend of mine missed the calc lecture and her friends told her not to worry, because everything McKinnon said was in a page of *mathNEWS*. Once, McKinnon told us that he showed up to his office on Friday morning with the *mathNEWS* on his desk, he saw the page of quotations, and was horrified. When I asked him about the quotes, he said that he says the same amount of ridiculous things in every course, but some terms have writers in his class, and others do not. He also asked me if the really creepy picture on the first issue was him, which of course, I could not confirm. I learned that he reads every article of every issue of *mathNEWS*. (Oops, that means he'll read this one. At least it'll be on the last day of classes, at the earliest.)

Now, there's a lot more to McKinnon than *profQUOTES* can show. Like the time when he was adding pi + smiley face, or how he'd constantly roast MATH 137. He's also made some strange sounds in class, or changed up his voice for no apparent reason, something that I can't exactly write down in *profQUOTES*. He has some common phrases like, "Let's prove this sucker!", "Any questions about this game?", and "So we win!" He'd also often write a theorem, and say "Proof: in the book. QED" as well as "there's a proof for this, but it's horrible.". Of course, he did a lot of proofs in class, and was an amazing professor overall. Once, a friend of mine needed clarification for a proof, and McKinnon actually walked up to the back of the lecture hall in BMH, sat on the floor beside him, and walked through the statement, phrase by phrase.

What I don't think McKinnon knows is that he has a fanpage, which is either linked, or censored right here: <http://csclub.uwaterloo.ca/~fbauckho/> He also is called McKi-D by some of his students. Everyone that I know has spoken well of him, and for many good reasons. I'd speak more of him, but it's better to get the true McKinnon experience by attending one of his lectures, the next of which is hopefully not at 8:30 AM every Monday, Wednesday, and Friday.

Stay awesome, McKi-D,  
2.3.5.7.735.2333772

## N Things to Experience at KWL's *Cinderella*

*Pantomimes are fun! Enjoy the final nights of the production this weekend at KW Little Theatre on December 4<sup>th</sup> and 5<sup>th</sup> at 8:00 PM!*

- The actors are REALLY into it (especially the mice)!
- If you call the mice "rats" you will definitely be in for a good smacking
- The show gives new meaning to the phrase "in your face". Be prepared for the actors to get close and personal (this is after all, a VERY little theatre)
- You may think you're watching a different fairy tale based on the music, but NOPE. You're still watching Cinderella! Her name is ELLE not Belle, and yes, she does see the daylight :)
- Beryl and Cheryl, Cinderella's stepsisters. They are honestly some of the best cast characters in it, and their antics are absolutely stellar!
- The Stepmother is a pretty good villain, and isn't THAT sinister. It's a nice change!
- Handy Dandy Dandini canNOT seem to catch a break can he? Impersonating the Prince does not do much for one's ego.
- Who doesn't love audience participation? Admittedly it is sometimes very difficult to keep things PG with it though...
- Sometimes the magic takes a minute, but then you're in for some spectacular (and outright HILARIOUS) transformations...STAGE MAGIC FOR THE WIN!
- Dust-vision makes a spectacular return from March Madness, no thanks to all the sweeping Cinderella has to do.
- You will likely be raging at the fact that Cinderella's big problem could've been solved with tape.
- You will also be raging at how convoluted Prince Charming's method of finding Cinderella is, but at least he does admit that Cinderella's shoe is a NORMAL size.
- You get to know a very loveable cast, although not everyone seems to get a happy ending (we love you Buttons!)
- It's such a fun experience, and by the time you get to read this article, I'll have seen the show twice! YOU SHOULD TOO WHILE YOU HAVE THE CHANCE!

waldo@<3.LE-GASP.ca

## What Is A Library?

Is it a place where books are kept? Is it a place where people can study together? Is it a place where you cannot reach out and touch anyone in North America? All have been recently proposed definitions.

If you want to find out what a library really is, try visiting one! We have at least six on campus. In fact, I think I'll try it out for myself right now! Wish me luck!

Diminutive Rex

## Professionally Developed

With a new term approaching, many of you readers will, like me, be going off on a work term. With this comes the boring timesink solemn responsibility of completing a professional development course. With course selection last week, you've no doubt already selected whether you'll be learning about problem solving<sup>1</sup>, ethical decision making<sup>2</sup>, teamwork<sup>3</sup>, cultural issues<sup>4</sup>, project management<sup>5</sup>, or one of the other pointless illustrious choices.

But not me. As I will be entering my fifth co-op term, I have already finished my requisite PD courses<sup>6</sup>. As such, I will not be wasting spending my evenings working on one of these professional development courses<sup>6,7</sup>. I won't have to write out solutions to hypothetical problems<sup>8</sup>, collaborating with my peers<sup>9</sup>. or resolving cultural issues<sup>10,6</sup>. Instead, I'll be playing video games and hanging out with my hot girlfriend<sup>6</sup>.

If, on the other hand, you're currently on a work term, you're probably just now finishing up<sup>11</sup> your work report. I, however<sup>6</sup>, am done all four of my work reports. This means that I won't be scrambling to write 13+ pages of absolute trash eloquent prose as the deadline looms<sup>7</sup>. Instead, I'll be out watching movies with my hot girlfriend<sup>6</sup>.

Enjoy<sup>12</sup>,  
 $s, t \in \{2k, k \in \mathbb{Z}\}$ , 144

<sup>1</sup>For trivial problems

<sup>2</sup>Poisoning the planet for profit

<sup>3</sup>Working with idiots<sup>9</sup>

<sup>4</sup>Racism

<sup>5</sup>Herding cats<sup>9</sup>

<sup>6</sup>Unlike you filthy peasants

<sup>7</sup>Giving me plenty of time to laugh at your misery<sup>12</sup>

<sup>8</sup>Stupid, hypothetical problems

<sup>9</sup>Who are REALLY unmotivated

<sup>10</sup>With racism

<sup>11</sup>More likely, starting

<sup>12</sup>You filthy peasants

## It's Time to Move

The world around you is not what it seems. Unknown to you, there's a secretive group of people worldwide, fighting for all of us. Some of you might even have heard of it, its name whispered between your classmates: Ingress.

It's brought people together all over the world. It's gotten friends and I exclusive tours of Google offices. Every city I've visited has a local player group, ready to show me the sights and sounds of stuff that tourists miss. I have a standing invitation to visit Facebook London to visit players there. It's gotten 15 of us, on a work term in California, to pile into a van and drive 1500km overnight to Arizona.

When you join the fight for the first time, choose the correct team. Join the Resistance—because if we fight, we might lose. But if we don't fight, we've already lost.

HatOfChocolate

## Breaking News: New Triscuit Flavour

A new flavour of Triscuit has hit store shelves, just in time for the holiday season. The new Limited Edition "Cranberry and Sage" Triscuits should be available in your favourite chain grocery store (and elsewhere; yes, even at Sobeys's-owned chains!), from now until sometime in January. Since we at *mathNEWS* are well-known for providing award-winning investigative journalism, I've decided to, well, investigate, or at least provide an account and description of the phenomenon. (Does it count if the awards are given by the Editors?) (Ha! Take that, copyright trolls! I can disseminate accounts and descriptions of this event at my pleasure!)



Row on Row of (Exorbitantly Expensive On-Sale) Triscuits

I was in my local Sobeys's-owned grocery store two weeks ago when I saw this display. A double-take and jaw-drop later, I snapped this photo, and picked up a box. This happened only a third of the way through my groceries run; finishing the run successfully took some effort and concentration. Triscuits aren't simply crackers; they're an *experience*.

When I got home, I had to try them. Trying new Triscuit flavours cannot wait. I opened the box, opened the sealed bag, and did what every first-year chem TA would freak out about: I directly smelled the natural aroma from the box, instead of wafting it towards me from a safe distance away from the box. Thankfully, because it was Triscuits and not, say, hydrochloric acid, I continued breathing, and noted what I found: a subtle smell, of something sweet with a little spice. It smelled a bit like a kitchen in the holidays, albeit not as strong. To be fair, my nose probably isn't the most useful sensory tool ever, so take this with a grain or a million of salt.

I then tasted the Triscuits. They were... interesting. The first couple of Triscuits in a box are usually somewhat deficient in seasoning, so a weaker flavour was to be expected, but what I

tasted was unexpected. There was no strong cranberry flavour, but there was a hint of something sweet. Admittedly, it's been a while since I've had sage, so how much of this flavour is sage and how much of it is cranberry, I'm not sure. It was a different flavour, for me.

Another peculiarity of this box of Triscuits was the physical structure of the individual Triscuits. It may have just been the box, but never before have I seen full-sized (ie. not the Thin Crisps) Triscuits split into a top half and bottom half so often. It was surprising, and hopefully not a sign of things to come for the overall quality of Triscuits in general.

At first, I was ready to write them off. But, I'd spent my \$3 Canadian on this box, and I refuse to waste Triscuits, so I tried them a bit by bit over the course of the next week. By the next weekend, my tastebuds had acclimatised to the flavour (or else I'd dug down and found the more fully-seasoned Triscuits), and I realised what this flavour was about: the combination of the sweet and the spice, *without* the tartness that usually accompanies cranberries. This is a successful combination.

It bears repeating the following fact. When making food, sometimes it's not about a super-strong flavour or overpowering spice; sometimes it's about a subtle combination of (potentially) weaker flavours, and the synergy involved in creating a coherent taste.



Triscuits! ... What's that in the background?

For me, these aren't the best Triscuits ever (Balsamic and Basil, followed closely by Rosemary and Olive Oil). But they are still fantastic, and a successful venture into the realm "Limited Edition" holiday snacks. Let's hope they come back next year.

Happy Holidays!  
Scythe Marshall

Follow us on Facebook (*mathNEWS*), or in person (MC 3030)!

## Essays are Dumb

*A short essay*

Being a student that foolishly took two history courses this term, I have had the *wonderful* experience of having two essays (research papers) due at the end of term. While writing these essays, which are the first research papers I have ever needed to write, I have come to some conclusions. Essays are a terrible method of arguing a person's point. Furthermore, they are a waste of student's time.

While having structure for your arguments is nice, it is not necessary. Essays can (and should) stray from the 'essay format' of intro, point, proof, point, proof, ..., conclusion. Limiting all the information for a section of your topic into one paragraph can bloat it and make connections to other sections weaker. Being free to ramble and flow naturally from one topic to another should be sufficient, if you can still make your points and back them up with facts (or not, depending on what your are writing on).

To prove your facts are indeed facts, you generally need to use one of the many citation formats, which are terrible<sup>1</sup>. The direct linking of statement to source is not bad, but requiring that all facts be linked in this manner restricts your ability to insert them into your arguments in a smooth manner. A system of citation where possible, with a bibliography to cover all sources, should be a sufficient method of giving credit to sources.

To ensure that students put enough work into their papers, and to make marking easy, most profs will enforce a minimum and/or maximum page or word requirement. Such min/max page/word criterion force writers to extend or reduce their work, usually resulting in 'padding'. These methods of artificially filling a paragraph do nothing to assist the writer in proving their point, and instead just wastes everyone's time in writing/reading it. Additionally, requiring writers to reduce the length of their work will only hurt their points, as they look at what they can cut to least affect their argument. Writers should be free to get their point across in a 'natural' amount of words, which is to say, the amount that they use in the first place.

Really, essays are a horrible way to write arguments, but they are used in many courses (mostly in the Arts Faculty) with a large chunk of the grade depending on them. If they are to be used in the future, it should be with less restrictions on writers, especially in lower-level courses.

TL;DR I don't like writing essays, am bad at writing in general, and am mad at having to write two at once.

Reference List:

1 - Canadian, S. (2015, December 4). Essays are Dumb. *mathNEWS*, p. 4

**Submit your articles, *prof*QUOTES, to [mathNEWS@gmail.com](mailto:mathNEWS@gmail.com) or the BLACK BOX near the MC Comfy Lounge.**

## N Ways to Come Up With a Work Term Report Topic

As this term comes to an end, many are once again faced with the sad reality of having to write a work term report. If you, like me, find yourself in the situation where the freedom to choose a topic turns into a fleeting illusion and a massive headache, then I have some handy tips:

- Think of the things you did over your work term. Think *real* hard. What did you do three months ago? Do you remember? Are you sure *that's* what you did? Wow, I can't believe you were responsible for that. I sincerely hope you apologized. You didn't? Oh well then... sorry. I hope you keep a crowbar close to your bed at night because you're probably going to need it.
- Once you've thought *real* hard determine what's common among your work related tasks. Did they involve test automation? What are interesting topics there? Did you work with WLAN on Android? Were your actions criminal? Did you hide the evidence? I always make sure I have a safe spot around the house that can hide bloody body parts. Try not to allow your nerves to come across as you write. But they know what you did; it doesn't matter.
- Ask your supervisor for suggestions. They have years of expertise; surely they have an idea. If you can reassemble their misshapen parts strewn around the office in that terrible explosion, that is. You did apologize, didn't you?
- Take a trip to the library and peruse the books. You'll need references anyway so this will help you scout out what resources are available. I recommend consulting the section of ancient tomes in the back corner to figure out how to resurrect your supervisor.
- Look at your area of expertise on Wikipedia. I'm sure you can't resist opening a couple links. Just a couple, then some more. Then some more. *Then some more*. You'll breeze through the next few decades as you become trapped in Wikipedia's warm embrace, pouring over the exponentially increasing number of tabs you have opened and continue to open. How does your computer have the RAM to keep all those open? Does it matter? Make sure to stop by the article on human blood and make sure you didn't leave any traces behind. Cover it all up, assuming you can tear yourself away from the glowing warmth of knowledge and trivia.
- Consult Google. Start with searching about your work. Eventually, frantically type through search after search, trying to piece together the best way to start your life over in Alaska. I hope they don't catch you at the border. Consider Googling how to fool them, too.
- Realize that you've already written four reports so you don't need to write another. Laugh it all away, at the futility and at your worries. There was never anything to worry about. Here, practice laughing with me. Ha, ha ha ha-haha, hahahahaha. There, much better. You never needed to do that in the first place.

I know what you did. *They* know what you did.

Work term reports are due December 18th.

## How To Stay On Topic

I've been informed by several villainous knaves that I seem incapable of staying on topic in an article. This is an issue that I will address once I'm done eating this pizza.

*mathNEWS* gets the weirdest kinds of pizza, you know? They've got this one they just call the 'Baxter Special' and I don't even know who it's named after (somebody Baxter, probably), let alone what they put on it!

What's the weirdest thing people put on a pizza, anyway? Without looking it up, I'd assume sharks. Somebody probably has put sharks on a pizza, and that's not where sharks should go. Sharks should go in the ocean, I think. There aren't any lake sharks, right?

That would be so weird! Sharks in a lake! What if they were in ponds? Koi ponds would be so unfashionable if you could have a little shark pond, with the fins cutting through the water.

Anyway, onto how I stay on topic in an article.

*[This article has been cropped to fit in this space. By the way, pesto sauce base, grilled chicken, and bacon crumble.—ConvolutED, AKA Somebody Baxter]*

Diminutive Rex

## N Things to Do on Exchange

Based on my experience as an exchange student:

- See the touristy sights! You don't really need to go to class all the time, it's pass/fail!
- Start wishing Waterloo had as good a public transport system.
- Eat local food everyday. Don't get sick. (Even if the pork is a weird bright pink colour)
- Start pining for something familiar... like McDonalds
- Refuse to eat at McDonalds again, then break down the next day and get a McFlurry
- Laugh when you realise that your courses are far easier than the uWaterloo equivalent and your program coordinator pre-approved your courses
- Cry when you meet other exchange students who spend all their time partying because they get credit for turning in their transcript with the list of classes they failed (Is that even participation-only credit?)
- Legitimately consider walking around in a tanktop in January because it's so bloody hot.
- Meet a local person of  $\{\$\}\{\text{GENDER\_YOURE\_INTERESTED\_IN}\}$ , get to know them really well/start dating them, return to Waterloo, forever sigh about lost opportunities
- Travel to a different country every weekend
- Be amazed at how cheap air travel is outside Canada
- Collect the local coins that are similar in size & weight to Canadian coins, resolve to see who'll get fooled back in Canada

HatOfChocolate

## An Intro to *mathNEWS* Authors

Hi! We are your *mathNEWS* authors. We are very happy to write for *mathNEWS*. We have taken this opportunity to ~~call for help~~ say hello to all of our readers. We absolutely love to write because ~~that's the only way we get any food~~ we love our readers. We also adore ~~our captors~~ the editors. So here's a proper ~~call for help~~ introduction.

Our job is simple: write articles. They can be about anything, as long as the editors decide it's worthy. They only want the best for us, after all. They just want us to do our best which is they give us punishment rewards when we please them.

We can be found in [REDACTED]. Please, come visit us any time ~~please oh god come help us we're being held in~~ [REDACTED]. We love visitors!

Yours in ~~pleasethisismylastchancethey're stopping me from~~ happiness,  
Shay Blair.

## TRIANGULATIONS

**TRIANGULATIONS** is a new puzzle that *mathNEWS* is trying out. On that note, we realize that we made the first series too difficult, and we have adjusted this new series accordingly. There are even little (cryptic) hints to help you on the right track. We'll be writing the answers to this series in a moment, so give them a try first!

### Last Time:

- **Cycle, Shell, Cube—Sorting algorithms**  
Cubesort uses a "self-balancing multidimensional array."
- **Bucket, Waiting, Linked—Lists**  
A waiting list is where you go if you forget to pre-enroll.
- **London, Paris, Delhi—Ontario cities named for capitals**  
Paris, Ontario, was named for plaster-of-Paris, actually.
- **Circle, Northern, Hammersmith—London subway lines**  
We'd do the Toronto subway, if it wasn't only four lines.
- **Haystacks, Rouen Cathedral, Water Lilies—Monet series**  
Claude Monet painted more than 20 versions of Rouen.
- **Great Bear, Great Slave, la Martre—Lakes in NWT**  
In order from largest to third-largest.

- **Finger, Binary, Clock—Meanings of 'digital'**  
It's the digital age now.
- **Cell, Mobile, Hand—Phones**  
Because "pocket-sized folding telephone" didn't fit.
- **Chrome/Chromium, Opera, Safari—Internet browsers**  
Chromium is the open-source version of Chrome.
- **Axle, Arrow, Crown—Anatomical planes etymology**  
Axial, Sagittal, Coronal
- **Comet, Fruit, Atom—Objects with a nucleus**  
A comet's centre and a fruit's seed are also called nuclei.
- **Fire Engine, Heart, Circuit—Windkessel Model**  
It models flows with chambers that damp fluctuations.

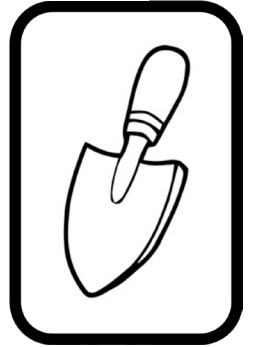
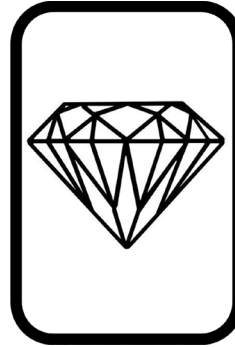
This Time:

# TRIANGULATIONS

In computer graphics, a triangulation is a representation of a surface by a series of triangular faces. The benefit of using triangles is that each triangle remains planar when deformed. Similarly, this puzzle involves a single face with three heavily deformed vertices. The purpose of this puzzle is to find the connection between the three pictures.

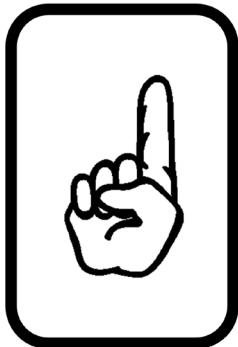
For example, the pictures to the right show a **DIAMOND**, a golf **CLUB**, and a garden **SPADE**. The connection is **PLAYING CARD SUITS**.

To see the answers to last week's (and this week's) series of **TRIANGULATIONS**, turn to the previous page.



Connection: PLAYING CARD SUITS

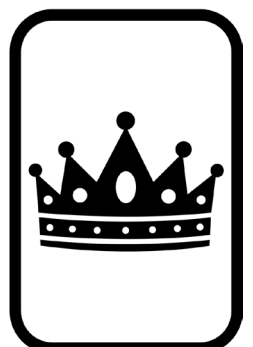
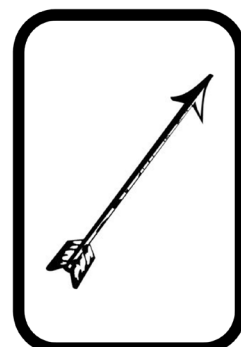
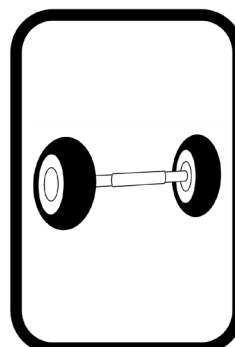
## EASIER



*It's no longer the Age of Aquarius.*

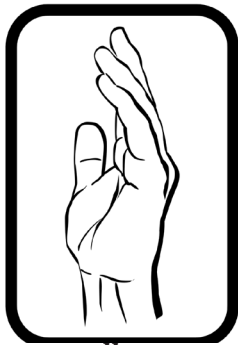
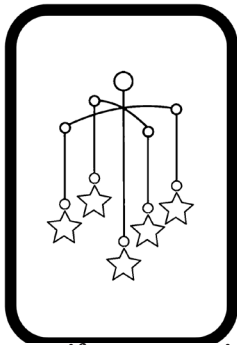
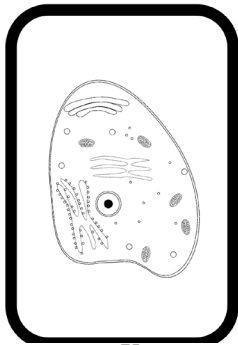
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## EVILER



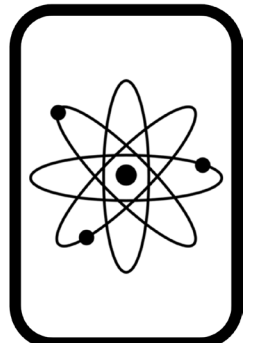
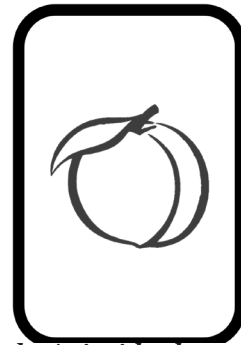
*The root of all medicine.*

Connection: \_\_\_\_\_



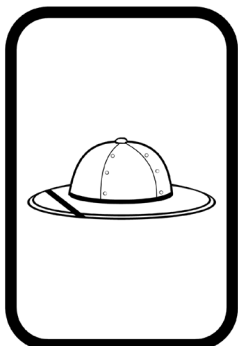
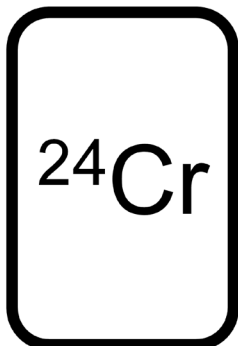
*You can answer if you want; it's your call.*

Connection: \_\_\_\_\_



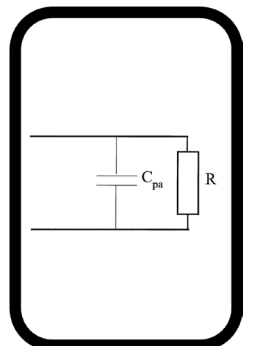
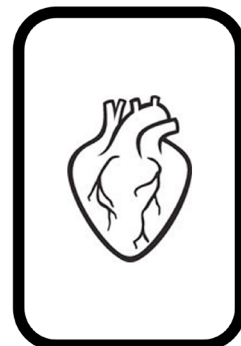
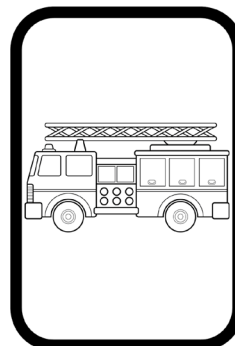
*It's what's inside that counts.*

Connection: \_\_\_\_\_



*More traffic than Highway 401!*

Connection: \_\_\_\_\_



*Model castles in the sky?*

Connection: \_\_\_\_\_